

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow. After amending the claims as set forth above, claims 12-32 are now pending in this application.

Specification

The specification is objected to because there was no proper antecedent basis for the feature of “the charge air after the first cooling stage has a temperature of between 40°C and 110°C” in claim 32. The specification has been amended to include this feature. For at least this reason, favorable reconsideration of the objection is respectfully requested.

Rejection of claims 24 and 31 based on Cikanek

Claims 24 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,269,143 (“Cikanek”). Claim 24 has been amended to recite “wherein the high-pressure charge air/air cooler is configured to use air flow of cooling air in a main cooling circuit upstream of a main coolant cooler as seen in a direction of the air flow of the cooling air.” Claim 31 (as amended) recites a similar feature. Cikanek does not teach or suggest this feature. In particular, Cikanek merely teaches a first intercooler 18 and a second intercooler 24 in front of a fan of the engine 30. Thus, Cikanek does not include all the features of either claim 24 or claim 31. For at least these reasons, favorable reconsideration of the rejection is respectfully requested.

Rejection of claims 12-16 and 25-28 based on Cikanek and Roithinger

Claims 12-16 and 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cikanek in view of U.S. Patent 6,782,849 (“Roithinger”). The rejection is traversed for at least the following reasons.

Claim 12 has been amended to recite “a third cooler, wherein the third cooler is a low-temperature cooler.” Claim 25 (as amended) recites a similar feature. Cikanek does not teach or suggest this feature. In particular, Cikanek merely teaches the use of two coolers: a first intercooler 18 and a second intercooler 24. Roithinger does not cure this deficiency because Roithinger similarly discloses only two coolers: a first charge-air cooler 10 and a second

charge-air cooler 11. Therefore, any combination of Cikanek and Roithinger does not teach or suggest the use of a third cooler.

Claims 13-16 and 26-28 depend from and contain all the features of either claim 12 or 25, and are allowable therewith for at least the same reasons above, without regard to the further patentable features contained therein.

For at least these reasons, favorable reconsideration of the rejection is respectfully requested.

Rejection of claims 19-23 based on Chou and Edmaier

Claims 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication 2002/0056444 ("Chou") in view of U.S. Patent 5,394,854 ("Edmaier"). For at least the following reasons, this rejection is traversed.

At the outset, it should be noted that the page 6 of the Office Action states that claims 19-23 are rejected as being unpatentable over "Chou et al. (Pub. Number US 2005/0056444 A1), in view of Edmaier et al. (Patent Number 5,394,854)." (Page 6 of the Office Action.) It was noticed that Chou was not listed as an inventor of US 2005/0056444 so Applicant's representative, Mr. Matthew Kremer (Reg. No. 58,671) contacted the Examiner on February 27, 2007, for clarification. The Examiner stated that 2005/0056444 should have been 2002/0056444. Applicant wishes to thank the Examiner for the prompt response.

Claim 19 (as amended) recites "a third cooler, wherein the third cooler and the second cooler form a cooling module, wherein a front face of the third cooler takes up 20% to 50% of a total front surface of the cooling module." Chou, Edmaier, or any combination thereof does not teach or suggest these features. The PTO has asserted (presumably for the rejection of claim 23) that an analogous recitation "the front face of the low-temperature cooler takes up 20% to 50% of a total front surface of the cooling module" is considered as functional language. (Page 8 of the Office Action.) It is respectfully submitted that the recitation is not merely functional but structural. In particular, the amount of surface area coverage of an object is well known to be a physical property that can be easily measured when said object is not engaged in any function. Thus, because Chou, Edmaier, or any combination thereof does not teach or suggest this structural feature, claim 19 is not rendered unpatentable over the prior art.

Claims 20-23 depend from and contain all the features of claim 19, and are allowable therewith for at least the same reasons above, without regard to the further patentable features contained therein.

For at least these reasons, favorable reconsideration of the rejection is respectfully requested.

Rejection of claims 17-18 and 29-30 based on Cikanek and Edmaier

Claims 17-18 and 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cikanek in view of Edmaier. For at least the following reasons, this rejection is traversed.

Claims 17-18 depend from and contain all the features of claim 12. As previously mentioned, Cikanek does not teach or suggest “a third cooler, wherein the third cooler is a low-temperature cooler.” Edmaier does not cure this deficiency. Thus, any combination of Cikanek and Edmaier does not teach or suggest all the features of claim 12, 17, or 18.

Claims 29-30 depend from and contain all the features of claim 24. As previously mentioned, Cikanek does not teach or suggest “wherein the high-pressure charge air/air cooler is configured to use air flow of cooling air in a main cooling circuit upstream of a main coolant cooler as seen in a direction of the air flow of the cooling air.” Edmaier does not cure this deficiency. Thus, any combination of Cikanek and Edmaier does not teach or suggest all the features of claim 24, 29, or 30.

For at least these reasons, favorable reconsideration of the rejection is respectfully requested.

Rejection of claim 32 based on Cikanek and Melchior

Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cikanek in view of U.S. Patent 4,485,624 (“Melchior”). Claim 32 depends from and contain all the features of claim 31. As previously mentioned, Cikanek does not teach or suggest “wherein the high-pressure charge air/air cooler is configured to use air flow of cooling air in a main cooling circuit upstream of a main coolant cooler as seen in a direction of the air flow of the cooling air.” Melchior does not cure this deficiency. Thus, any combination of Cikanek and Melchior does not teach or suggest all the features of claim 31 or 32. For at least these reasons, favorable reconsideration of the rejection is respectfully requested.

Conclusion

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date

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